

Figure 1A

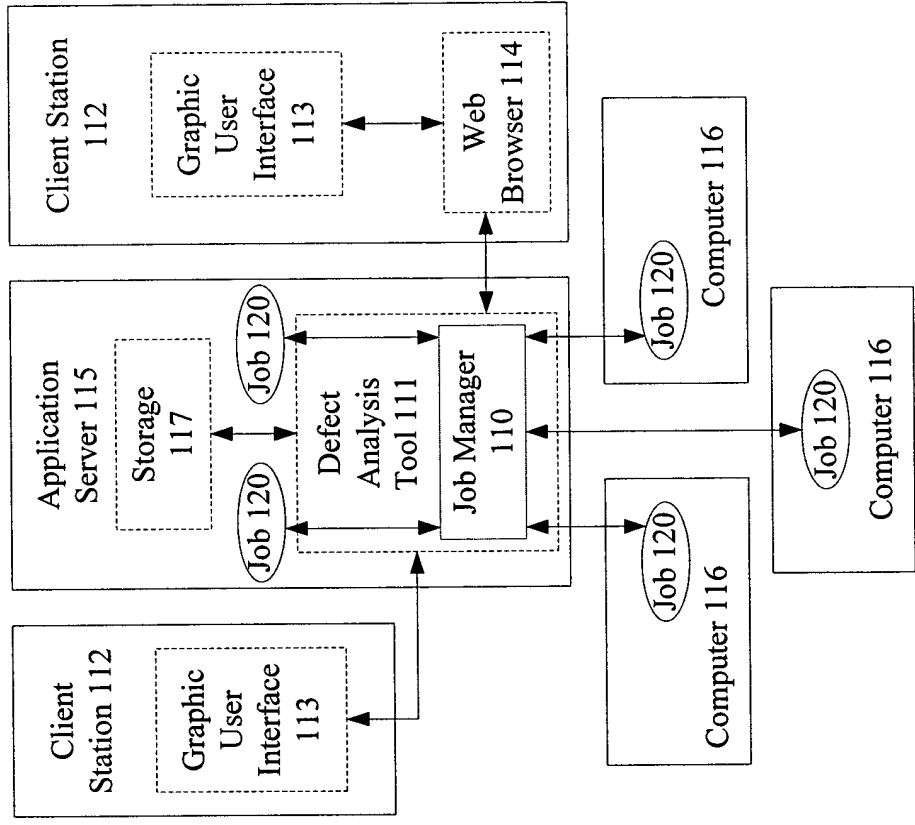


Figure 1B

Virtual Stepper System

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

200

Name

AP Mask

201

Type

ATT-PSM

Phase (degree)

180.0

202

Transmission (%)

6.0

Add

☐ Mask Type

☐ Binary

☐ ATT-PSM

Mask Name

B Mask

AP Mask

Phase

180.0

Transmission

6.0

Edit

Edit

Delete

Delete All

Update

Figure 2

Virtual Stepper System

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

Name

Stepper 1

Wavelength

248

NA

0.57

Reduction

4.0

Defocus

Single

Illumination

Angular

Add

300

301

302

Advanced

Stepper Name

Stepper 1

Stepper 2

Wavelength

248

365

NA

0.57

0.65

Reduction

4.0

2.5

Illumination

Angular

Circular

Edit

Edit

Delete

Delete All

Update

Figure 3

Virtual Stepper System

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job

Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

INSI

400

Add

Vendor

KLA-Tencor

401

Model

SLF-27

402

Name

INS1

INS2

Vendor

KLA-Tencor

Lasertec

Model

SLF-27

MD2100

Edit

Edit

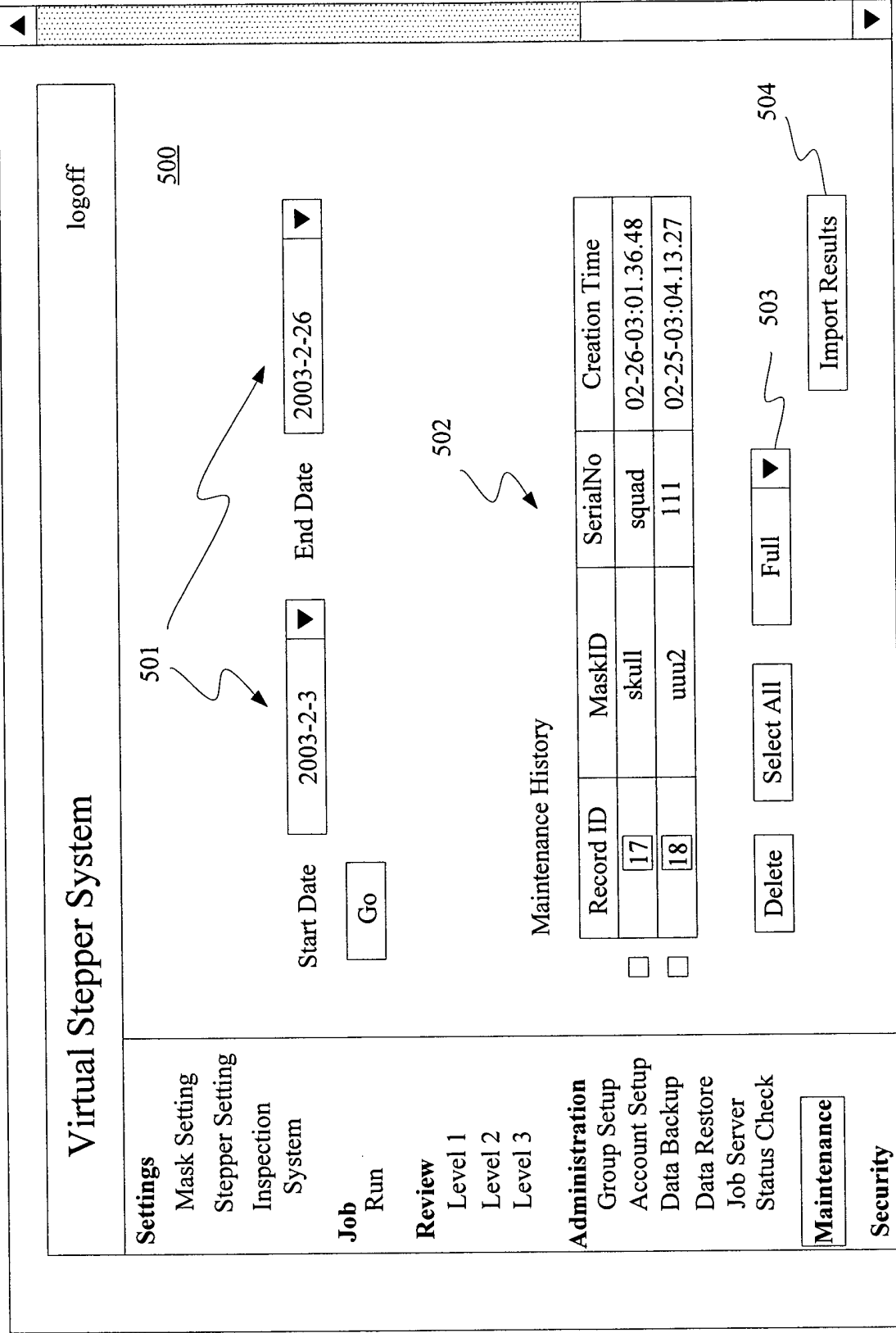
Edit

Delete

Delete All

Update

Figure 4



Virtual Stepper System

600

logoff

Settings

Mask Setting

Stepper Setting

Inspection

System

Select Mask, Stepper Setting, Job Type

601

Masks In Queue

Spurs:1024

Stepper Settings

step1

Job Type

ADSS

Wavelength=248.0,

Coherence=0.75, NA=0.57,

Illumination=Circular,

Job

Run

Link To Previous Inspection Run

602

Reuse Old Recipe

Simulation Setting

603

Minimum Dark Background

0

Maximum Bright Background

226

Advanced

ADSS Setting

604

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

ADSS Mode

Line Spacing

ADSS Scoring

Red

Green

Yellow

Maintenance

Security

Figure 6A

Virtual Stepper System

600

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job

Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

Threshold Setting

605

Tolerance

-10

% -

10

%

Use Auto Thresholding

606

Wafer CD = (Mask CD/Reduction) +

10

Bias (nm)

Mask CD

Wafer CD

Use Manual Thresholding

607

Nominal Threshold

Threshold

Process Window Range

608

Exposure

-5

% -

5

%

Defocus (nm)

0

▼

-

0

▼

Figure 6B

Virtual Stepper System

700

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

Inspection System:

uv305

Created Between:

02-26-03

To:

02-27-03

Lot Name:

All

Search

Figure 7



Virtual Stepper System

800

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

Job Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

801

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×

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Refresh

☐ All Inspection Runs
 ☐ Current Run
 ☐ Current Run with AIMS

Review

Review Completed

Current Status: 19.4% Red, 16.7% Yellow, 63.9% Green, Total 36

History: Pass 0%, Reject 0%, Total 36

Figure 8

Virtual Stepper System

900

logoff

Settings

Mask Setting

Stepper Setting

Inspection System

File Selection

Manual Zoom

Aerial Image Analysis Help

Mask

PASS1

ADSS

10.0

Defect

Status

Update

Defect #1

Report

Done

Mask Image

ADSS

Test Transmitted

Test Transmitted

901

903

History

Reviewed by test, 05/15/03, waived.

Simulated Defect

Simulated Ref

902

904

Comments

Job

Run

Review

Level 1

Level 2

Level 3

Administration

Group Setup

Account Setup

Data Backup

Data Restore

Job Server

Status Check

Maintenance

Security

Figure 9

Data Exporter

1000

logoff

File

Edit

Image

Help

Mask Type

ATT-PSM

Mask ID

Inspection System

KTC\_I

Serial Number

Pixel Size

65.0

Inspection Stage

Inspection Mode

B

Inspection Reference

Rotation

Coordinate X

Coordinate Y

1001

1002

ID	Xcoord	Ycoord	Class	Defect	Xsize	Ysize	Image Type	Index or Path

Figure 10